

SYSTEM AND METHOD FOR OPTICAL PORT INSPECTION FOR TELECOMMUNICATION SYSTEMS AND DEVICES

ABSTRACT OF THE DISCLOSURE

5 The present invention relates to a system and method for *in situ* inspection of
optical ports for occlusions that might impede an optical signal. The present invention
utilizes a mini-borescope of the type having a borescope insertion tube of less than two
millimeters in diameter. The mini-borescope may utilize a video camera for capturing
images of the target and adjustably magnifies the target image for display. In addition,
one of a plurality of component type borescope-to-optical port adapters is coupled to the
10 mini-borescope insertion tube. Each particular type borescope-to-optical port adapter
allows the insertion tube to be inserted and aligned to a corresponding type of optical
component, for instance if the BOPA is an SC-type male connector, then the insertion
tube will be readily accepted by an SC-type female adapter. Also included in the BOPA
is a protective sleeve that surrounds a portion of the mini-borescope insertion tube. The
15 protective sleeve provides the insertion tube with added rigidity, thereby lessening the
likelihood of accidentally bending the tube during insertion. BOPAs may also cooperate
with component shutter systems for actuating protective shutters during engagement of
the BOPA, thereby exposing the coupling surface without manual intervention.